CREATOR

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A GLIMPSE OF THE ETERNAL

"For God so loved the world, that He gave His only begotten Son, that whoever believes in Him shall not perish, but have eternal life" (John 3:16).

Do you see anything special in the photo below? If you study it, you'll notice

an aquatic animal with long tentacles. But several of Christ's creatures that live in water have tentacles (the octopus, squid)—so that, in itself, is not so unique. You may also notice that it's holding fast to a green twig by what seems to be a foot. Yet we know other creatures can do that.

What we see in this photo is a freshwater animal known as *Hydra*. Most people aren't even aware of its existence because it's so small. Found in freshwater ponds all over the world, *Hydra* is a genus (type) of half-inch invertebrate species that have similarities to jellyfish, coral, and sea anemone.[1]

It's possible to observe hydra from early spring through autumn, but it takes patience and a childlike heart. Simply skim the surface of a pond with a fine net and place the contents in a clear jar or small aquarium filled with pond water. If you wait 15 to 30 minutes, and you have a magnifying glass, you should be able to spot these minute creatures attached to the sides of water plants or some other vegetable matter. You will recognize them

1 Hydra, jellyfish, coral, and sea anemone all belong to a group (phylum) of creatures scientists call Cnidaria (pronounced nye - DAR - ee - uh). All Cnidaria possess stinging structures, called cnidocytes (nye - DOE - cysts), which help these animals capture prey.

by the waving about of their fine tentacles.

"What's so special about this tiny critter?" you ask. Well, in 1998, a researcher by the name of Daniel Martínez—after years of careful study—concluded that *Hydra* are *potentially immortal*—they do not die. Martínez's claim was initially doubted by the scientific community, but subsequent studies on *Hydra* seem to support the fact that individual hydra neither grow old nor die!

"Hey, wait a minute," you might retort, "all plants and animals die, don't they? A person may live to be 100, a turtle 200, and a redwood tree 1,000 years old, but nothing can survive indefinitely, can it?" These are legitimate questions and valid points.

How did Dr. Martínez come to this astounding conclusion? It's interesting to note that he did not set out to confirm *Hydra* immortality, but rather disprove it. Over a period of four years, he observed 60 individual hydra, each in its own aquatic environment. And at the end of the four years he noted that "the hydra looked as youthful as on day one." This is extremely unusual for an invertebrate so small; normally creatures in this size-range live only a few weeks, months at the very most.

Larger invertebrates[2] have been known to survive for years (some female tarantulas can live 20 years or more), although most do not. The lifespan of a common housefly is only 28 days, and that of a honeybee four to five months. In all these cases, however, there were *clear signs of aging*; not so with the hydra!

Professor Martínez repeated his experiment with the help of James W. Vaupel of the Max Planck Institute for Demographic Research (MPIDR) in

The FoxO Gene

It's been discovered that both humans and hydra possess a certain gene in their chromosomes that scientists have designated FoxO. The FoxO gene directs the manufacture of a mysterious molecule known as the FoxO protein. Apparently, the presence of the FoxO protein helps prevent aging. Hydra continue to maintain high levels of FoxO, while people experience decreasing amounts with the passing of years. An interesting side note, however, is that centenarians (people who live to be 100 years old) have a higher than normal level of the FoxO protein in their bodies compared to other older folks.

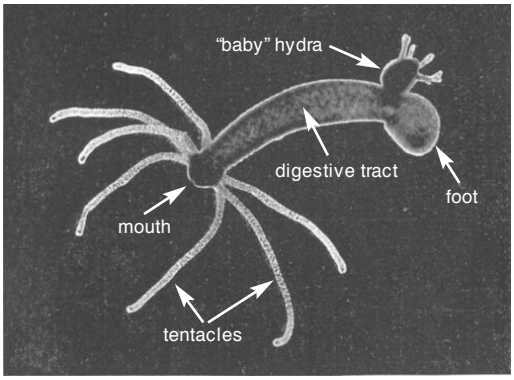
2 Invertebrates are animals without backbones, like insects, spiders and many sea creatures.

Rostock, Germany. This time 2,256 individual hydra were meticulously observed over eight years, but the team still found no appreciable mortality in these creatures either. How is this possible since we know that all plants and animals eventually die?

Apparently, *Hydra* are capable of renewing the tissues of their body continuously, thus preventing senescence.[3] (This reminds me of a scene from the 1956 film, *The Forbidden Planet* when the "id monster" is barraged with one billion electron volts and does not die. According to the spaceship's doctor, it was able to renew its molecular structure from one microsecond to the next.)

A hydra can also rapidly replace a missing tentacle or repair serious injury. This is not to say that it cannot be destroyed—it will succumb to deadly poisons, for instance. But it is possible to chop a hydra into a number of pieces without killing it. Each piece will then regenerate into a complete organism! God, however, graciously provides the hydra a way to reproduce that does not involve violence. Normally, baby hydra can be found budding off the sides of an adult, like tiny cacti forming on an adult cactus. Once big enough, the young hydra simply fall off and live on their own.

If you go back and look again at the photo on the front page you'll notice two



The anatomy of a hydra consists of a soft tubular body plus five to seven tentacles. "Baby" hydra can often be seen sprouting from the sides of the main body.

"arms" on the hydra. Actually, these aren't arms at all, but baby hydra. (During his study, it was necessary for Professor Martínez to thoroughly remove—and with tedious regularity—any young hydra from the adults so that they would not be confused with the original population of hydra.)

If *Hydra* truly have no end to their existence, it would be natural for us to ask, "Why did our Creator, Christ Jesus, fashion such a creature?" We at His Creation are persuaded from the Bible that every one of God's revealed attributes can be illustrated somehow, somewhere in nature (Romans 1:20). It's not difficult to find expressions of Christ's beauty, power, tenderness, holiness, and love in creation. But up until now, there has been no evidence that anything mirrors His eternal life.

3 Senescence (sih - NES - uns) is the term for biological aging.

A hydra attached to the stem of an underwater plant showing how small it is

So why would our Creator form an animal that seems to go against the grain of common existence? If *Hydra* are "biologically immortal," then it may be that our Lord has given us a solitary example of creatures unaffected by the Fall. When Adam sinned, all of humanity was placed on the road to death. Not only that, every living thing on Earth was cursed because of humanity's sin, cursed to die.

We can only speculate, but there may be at least two reasons for *Hydra*'s apparent immortality. First God's Word is, once again, proven true. Isaiah 6:3 and Romans 1:20 tell us that we should be able to find Christ's eternality somewhere in creation. God has opened our eyes to everlasting life, so to speak, demonstrated in *Hydra*. Secondly, although our hope of eternal life in Christ Jesus is clearly and sufficiently proclaimed by Scripture, we also taste God's sweet kindness through a living example in nature of something that both *illustrates and points to that eternal hope.*

If you have received Christ into your life, then it's a sure bet that your eternal body will be far more wonderful than that of the hydra. (Although the thought of multiple arms is appealing.) Please allow the possibility of *Hydra*'s immortality to encourage your heart, for Christ's love for His own people is far greater. Think about it—if God is able to make something immortal in fallen creation—*and He is!*—then how much more can He save us from sin and eternal death? Jesus died on a cross for the sins of His own, and rose from the grave to pave the way to eternal life, which is in Himself. If you believe this and repent of your sins, then you possess eternal life in a far greater way than any hydra ever could.

And one called out to another and said, "Holy, Holy, Holy, is the Lord of hosts, the whole earth is full of His glory" (Isaiah 6:3).

Green hydra (*Hydra viridissima*)

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